WE CLAIM

1. A stent, comprising:

a helical structure having a plurality of coils, said structure having a longitudinal axis and said coils having a pitch, said structure having an internal longitudinal passage wherein said structure is made from a fiber having a cross-section, said fiber comprising:

an inner core having an exterior surface comprising a biodegradable polymer formed from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, trimethylene carbonate, caprolactone, and combinations thereof, said polymer having a first degradation rate;

an outer section covering the exterior surface of the inner core, the outer section comprising a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second

polymer component comprising a second biodegradable polymer, wherein said second polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, said outer layer having a second degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component,

wherein said second degradation rate of said outer section is lower than said first degradation rate.

2. The stent of claim 1, wherein the core and the outer layer of the fiber are coextruded.

3. The stent of claim 1, wherein the polymer for the inner core comprises a polymer having a sequence selected from the group consisting of random, block, and segmented block sequences and combinations thereof.

4. The stent of claim 1 wherein the polymer for the inner core comprise a copolymer of about 75 mole percent polymerized glycolide and about 25 mole percent polymerized caprolactone.

5. The stent of claim 1, wherein the blend of the outer section comprises at least about 50 weight percent of the first component and at least 20 weight percent of the second component, wherein the blend comprises about 38 to about 89 weight percent of polymerized glycolide with the remainder comprising copolymerized lactide.

6. The stent of claim 1, wherein the first component of the blend of the outer section comprises a 10/90 lactide/glycolide copolymer, and the second component comprises an 85/15 lactide/glycolide copolymer, wherein the blend comprises about 60 weight percent of the first component and about 40 weight percent of the second component, wherein the blend comprises about 60 weight percent of polymerized glycolide and about 40 weight percent of polymerized lactide.

7. The stent of claim 1 wherein the fiber comprises a substantially oval cross-section.

8. The stent of claim 1, wherein the fiber additionally comprises a longitudinal, hollow passage.

9. The stent of claim 1, wherein the inner core degrades into small particles.

10. The stent of claim 1, wherein the outer section degrades into a fibrillar morphology.

11. The stent of claim 1, wherein the fiber has a substantially circular cross-section.

12. The stent of claim 1, wherein the helical structure is made from more than one fiber.

13. The stent of claim 1, wherein the inner core additionally comprises a pharmaceutical agent.

14. The stent of claim 1 wherein the outer section additionally comprises a pharmaceutical agent.

15. The stent of claim 1, additionally comprising a radio-opaque compound.

16. The stent of claim 1 wherein the outer section is a coating.

17. The stent of claim 1 wherein the outer section is a layer.

18. A biodegradable fiber, the fiber comprising:

an elongated member having a cross-section, the member comprising:

an inner core having an exterior surface comprising a biodegradable polymer formed from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, trimethylene carbonate, caprolactone, and combinations thereof, said inner core having a first degradation rate; and,

an outer section covering the exterior surface of the inner core, the outer section comprising a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second polymer component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, said outer layer having a second degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component,

wherein said second degradation rate is higher than said first degradation rate.

19. The fiber of claim 18 additionally comprising a longitudinal hollow passage.

20. The fiber of claim 18, wherein the core and the outer layer of the fiber are coextruded.

21. The fiber of claim 18, wherein the polymer for the inner core comprises a polymer having a sequence selected from the group consisting of random, block, and segmented block sequences and combinations thereof.

22. The fiber of claim 18 wherein the polymer for the inner core comprise a copolymer of about 75 mole percent polymerized glycolide and about 25 mole percent polymerized caprolactone.

23. The fiber of claim 18, wherein the blend of the outer section comprises at least about 50 weight percent of the first component and at least 20 weight percent of the second component, wherein the blend comprises about 38 to about 89 weight percent of polymerized glycolide with the remainder comprising copolymerized lactide.

24. The fiber of claim 18, wherein the first component of the blend of the outer section comprises a 10/90 lactide/glycolide copolymer, and the second component comprises an 85/15 lactide/glycolide copolymer, wherein the blend comprises about 60 weight percent of the first component and about 40 weight percent of the second component, wherein the blend comprises about 60 weight percent of polymerized glycolide and about 40 weight percent of polymerized lactide.

25. The fiber of claim 18, wherein the inner core degrades into small particles.

26. The fiber of claim 18, wherein the outer section degrades into a fibrillar morphology.

27. The fiber of claim 18 comprising a substantially oval cross-section.

28. The fiber of claim 18 comprising a substantially circular cross-section.

29. The fiber of claim 18, wherein the inner core additionally comprises a pharmaceutical agent.

30. The fiber of claim 18 wherein the outer section additionally comprises a pharmaceutical agent.

31. The fiber of claim 18 comprising a radio-opaque compound.

32. The fiber of claim 18 wherein the outer section is a coating.

33. The fiber of claim 18 wherein the outer section is a layer.

34. A method of maintaining a passageway of a body lumen substantially open, comprising the steps of:

providing a biodegradable stent, said stent comprising:

a helical structure having a plurality of coils, said structure having a longitudinal axis and a longitudinal passage, and said coils having a pitch, wherein said structure is made from a fiber, said fiber having a cross-section and said fiber comprising:

an inner core having an exterior surface comprising a biodegradable polymer formed from monomers selected from the group consisting of lactide, glycolide, para-dioxanone,

trimethylene carbonate, caprolactone, and combinations thereof, said inner core having a first degradation rate; and,

an outer section covering the exterior surface of the inner core, the outer section comprising a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second polymer component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, said outer layer having a second degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component; and,

inserting said stent into a body lumen,

wherein said second degradation rate is lower than said first degradation rate, and said outer layer degrades into a soft, fibrillar morphology.

35. A stent, comprising:

a tubular structure having a longitudinal passage, said structure comprising:

an inner core having an exterior surface comprising a biodegradable polymer formed from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, trimethylene carbonate, caprolactone, and combinations thereof, said polymer having a first degradation rate;

an outer section covering the exterior surface of the inner core, the outer section comprising a comprising a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second polymer component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, said outer layer having a second degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component,

wherein said second degradation rate of said outer layer is slower than said first degradation rate of the inner core.

36. A stent, comprising:

an elongated structure having a longitudinal passage, said structure comprising:

a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second polymer component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component, said blend having an in vivo degradation rate,

wherein said structure degrades by softening.

37. The stent of claim 36, further comprising an inner core having a second degradation rate, said second degradation rate being faster than the degradation rate of the blend.

38. The stent of claim 37 comprising a tubular structure.

39. A stent comprising:

an elongated structure having an inner passage, said structure comprising:

an inner core having an outer surface, said core comprising a first biodegradable polymer composition, said polymer composition having a first degradation rate; and,

an outer structure positioned over said outer surface, said outer structure comprising a second biodegradable polymer composition having a second degradation rate,

wherein the first degradation rate is faster than the second degradation rate.

40. The stent of claim 39 wherein the second polymer composition comprises a blend of a first biodegradable polymer and a second biodegradable polymer.

41. The stent of claim 39 wherein the stent has a tubular structure.

42. The stent of claim 39, wherein the stent has a helical structure, and the structure is made from a wound fiber.

43. The stent of claim 39, wherein the first polymer composition comprises a polymer made from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, trimethylene carbonate, caprolactone, and combinations thereof.

44. The stent of claim 39, wherein said outer structure comprises a blend of a first polymer component comprising a first biodegradable polymer and a second polymer component comprising a second biodegradable polymer, wherein said first biodegradable polymer comprises a glycolide-rich polymer having at least about 80 mole percent of polymerized glycolide, said second polymer component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich

polymer comprising at least about 50 mole percent of polymerized lactide, said outer layer having a second degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component.

45. The stent of claim 44, wherein the blend comprises at least about 50 weight percent of the first component and at least 20 weight percent of the second component, wherein the blend comprises about 38 to about 89 weight percent of polymerized glycolide with the remainder comprising copolymerized lactide.

46. The stent of claim 44, wherein the first component of the blend of the outer structure comprises a 10/90 lactide/glycolide copolymer, and the second component of said blend comprises an 85/15 lactide/glycolide copolymer, wherein the blend comprises about 60 weight percent of the first component and about 40 weight percent of the second component, wherein the blend comprises about 60 weight percent of polymerized glycolide and about 40 weight percent of polymerized lactide.

47. The stent of claim 43 wherein the polymer for the inner core comprise a copolymer of about 75 mole percent

polymerized glycolide and about 25 mole percent polymerized caprolactone.

48. A method of maintaining a passageway of a body lumen substantially open, comprising the steps of:

providing a biodegradable stent, said stent comprising:

a tubular structure having a longitudinal passage, said structure comprising:

an inner core having an exterior surface comprising a biodegradable polymer formed from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, trimethylene carbonate, caprolactone, and combinations thereof, said polymer having a first degradation rate;

an outer section covering the exterior surface of the inner core, the outer section comprising a comprising a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second polymer

component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, said outer layer having a second degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component; and,

inserting said stent into a body lumen,

wherein said second degradation rate is lower than said first degradation rate, and said outer layer degrades into a soft, fibrillar morphology.

49. The stent of claim 1, wherein the stent is annealed.

50. The fiber of claim 18, wherein the fiber is annealed.

51. The stent of claim 35 comprising a fabric.

52. The stent of claim 35 comprising a mesh.

53. The stent of claim 35 comprising a fiber wound into a helix.

54. A stent comprising:

an elongated structure having an inner passage, said structure comprising:

an inner core having an outer surface, said core comprising a first biodegradable polymer composition, said polymer composition having a first degradation rate; and,

an outer structure positioned over said outer surface, said outer structure comprising a second biodegradable polymer composition having a second degradation rate,

wherein the first degradation rate is slower than the second degradation rate.

55. A stent, comprising:

a tubular structure having a longitudinal passage, said structure comprising:

an inner core having an exterior surface, the inner core comprising a comprising a blend of a first biodegradable polymer component and a second biodegradable polymer component, said first polymer component comprising a

first biodegradable polymer, wherein said first biodegradable polymer comprises a lactide/glycolide copolymer having at least about 80 mole percent of polymerized glycolide, said second polymer component comprising a second biodegradable polymer, wherein said second biodegradable polymer comprises a lactide-rich copolymer comprising at least about 50 mole percent of polymerized lactide, said inner core having a first degradation rate, wherein the blend comprises at least about 50 weight percent of the first component and at least about 5 weight percent of the second component; and,

an outer section covering the exterior surface of the inner core comprising a biodegradable polymer formed from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, trimethylene carbonate, caprolactone, and combinations thereof, said polymer having a second degradation rate,

wherein said second degradation rate of said outer layer is faster than said first degradation rate of the inner core.

56. The stent of claim 35, wherein the outer structure comprises a lattice having openings therein.